AMA04 SERIES

DIMENSIONS:

AC-DC

1.46 x 1.08 x 0.69"
(37.0 x 27.5 x 17.5mm)

4W

- DUAL OUTPUTS
- -40 TO 70°C OPERATION
- 90-264VAC
- COMPACT SIZE
- EN55022 LEVEL B
- <0.3W NO-LOAD POWER

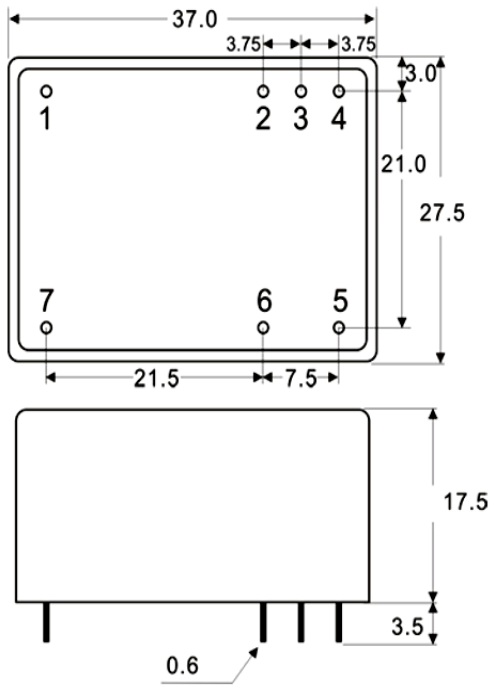
Part numbers

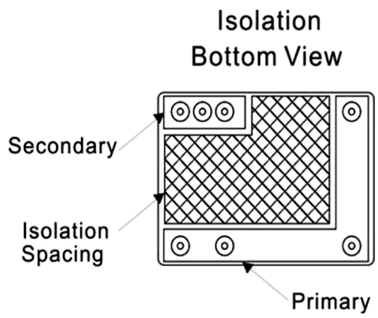
AMA	04	12
Series	Power	Output voltage
		03 = 3.3VDC 05 = 5VDC 08 = 8VDC 09 = 9VDC 12 = 12VDC 14 = 14VDC 15 = 15VDC 24 = 24VDC

Key specifications

Input range	Safety certification	Efficiency	Environmental performance
90-264VAC	IEC / EN 62368-1	69 - 77%	Operational: -40 to 70°C

Mechanical





Pin Connections		
Pin	**Single**	**Dual**
1	NC	NC
2	+Vout	+V1
3	GND	COM
4	NC	+V2
5	AC IN (L)	AC IN (L)
6	AC IN (N)	AC IN (N)
7	NC	NC

Notes
1. All dimensions shown in mm 2. Pin diameter tolerance 0.5 ±0.05 (0.02 ±0.002) 3. General tolerance ±0.5 (±0.002)

Weight
26g

Models & Ratings

Model Number	Output Power	Output 1		Output 2		Efficiency
		Output Voltage	Output current	Output Voltage	Output current	
AMA0403	3.96W	3.3V	1200mA			68%
AMA0405	4W	5V	800mA			72%
AMA0408	4W	8V	500mA			74%
AMA0409	4W	9V	444mA			75%
AMA0412	4W	12V	333mA			76%
AMA0414	4W	14V	286mA			76%
AMA0415	4W	15V	267mA			76%
AMA0424	4W	24V	167mA			77%
AMA04D01	3.5W	5V	600mA	3.3V	150mA	72%
AMA04D02	3.6W	8V	375mA	5V	120mA	74%
AMA04D03	3.6W	12V	250mA	5V	120mA	75%

Input

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Input voltage	90		264	VAC	See page 5 for derating curve. 120-370VDC
Input frequency	47		440	Hz	
Power factor					EN61000-3-2 class A
Input current			110	mA rms	115VAC
Inrush current			15/25	A	115/230VAC. Cold start at 25°C
No load input power			0.3	W	
Input protection					3.15A slow blow fuse required

Output

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Output voltage	3.3		24	VDC	See Models & Ratings table
Set point accuracy			±2/±5	%	Duals V1 ±2%, V2 ±5%
Line regulation			±0.2/±3	%	Duals V1 ±0.2%, V2 ±3% Low line to high line
Load regulation	±0.5		±1/±5	%	Singles 3.3-9V ±1, 12-24V ±0.5 Duals V1 ±0.5%, V2 ±5% 0 to 100% load for single outputs, 25 to 100% for dual outputs
Minimum load			25	%	25% for dual output V only
Transient response			4	%	25% load change. Recovery to within 1% in less than 500uS
Ripple and noise	100		250	mV	Singles 3.3-5V <250, 8-9V <200, 12-14V <150, 15-24V <100 Duals D01 <200, D02 <150, D03 <100 All models measured with 0.1uF capacitor & 47uF electrolytic. 20 MHz bandwidth
Hold up time	15			mS	

Protections

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Overload	135		266	%	
Short circuit					Trip and restart. Automatic recovery

Safety

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Safety standards	ICE/EN62368-1				
Isolation: Input to output	3000			VAC	

EMC: Immunity

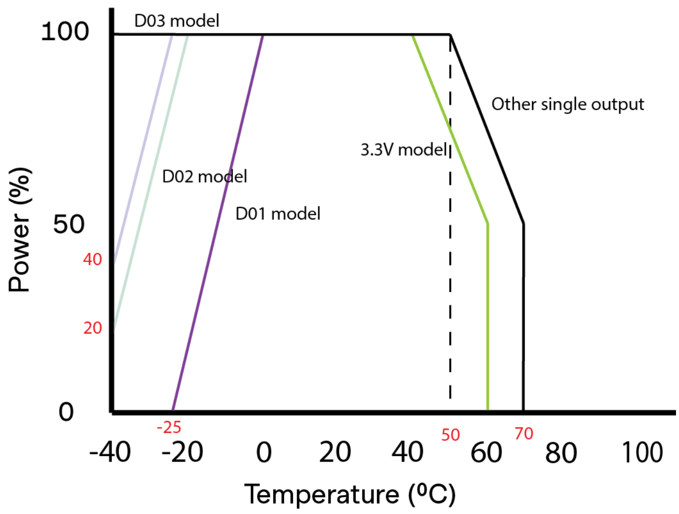
	Standard	Test level	Criteria	Notes/Conditions
ESD	EN61000-4-2	2/3	A	±4kV contact, ±8kV air
Radiated	EN61000-4-3	2	A	3V/m
EFT	EN61000-4-4	2	A	1Kv L/N
Surges	EN61000-4-5	Installation class 3	A	1KV L/N 2KV L-PE N-PE
Conducted	EN61000-4-6	2	A	3Vrms
Magnetic fields	EN61000-4-8	1	A	1A/m

EMC: Emissions

	Standard	Test level	Criteria	Notes/Conditions
Conducted	EN55022	B		
Radiated	EN55022	B		
Harmonic current	EN61000-3-2	Class A		
Voltage flicker	EN61000-3-3			

Environmental

Parameter	Min	Typical	Max	Unit	Notes/Conditions
Operating temperature	-40		70	°C	See derating curve
Storage temperature	-40		85	°C	
Cooling					Convection cooled
Temperature coefficient			±0.02	%/°C	
Storage Humidity			95	% RH	
MBTF		>450		MHrs	As per MIL-HDBK-217F, 25°C GB



4th June 2025